

20270 "96052660

Fig. 1
Polar.Alt

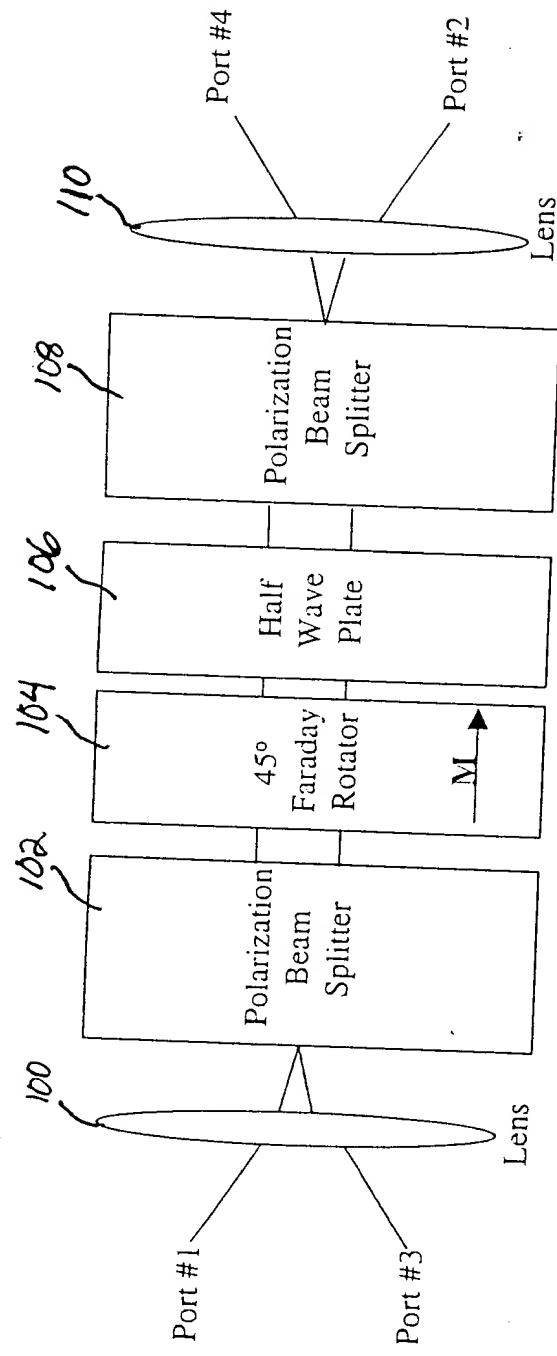
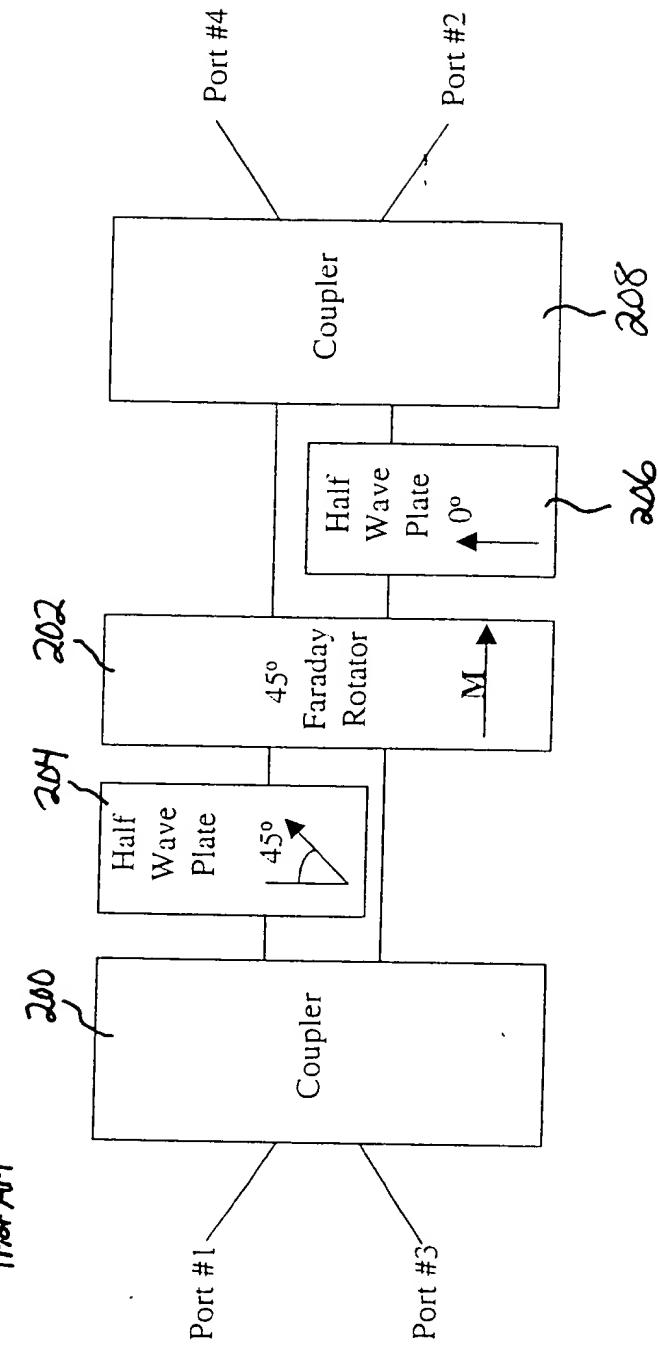


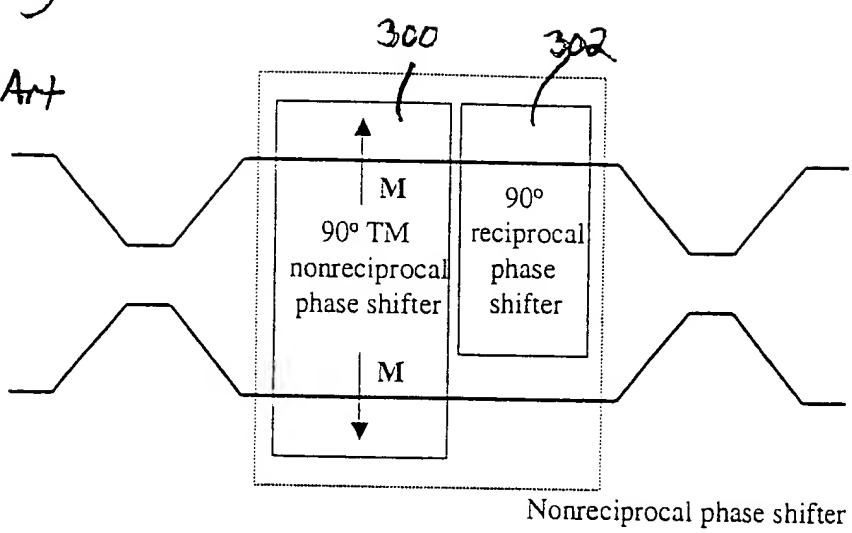
Fig. 2
Prior Art



09965096-0114702

Fig. 3

Prior Art



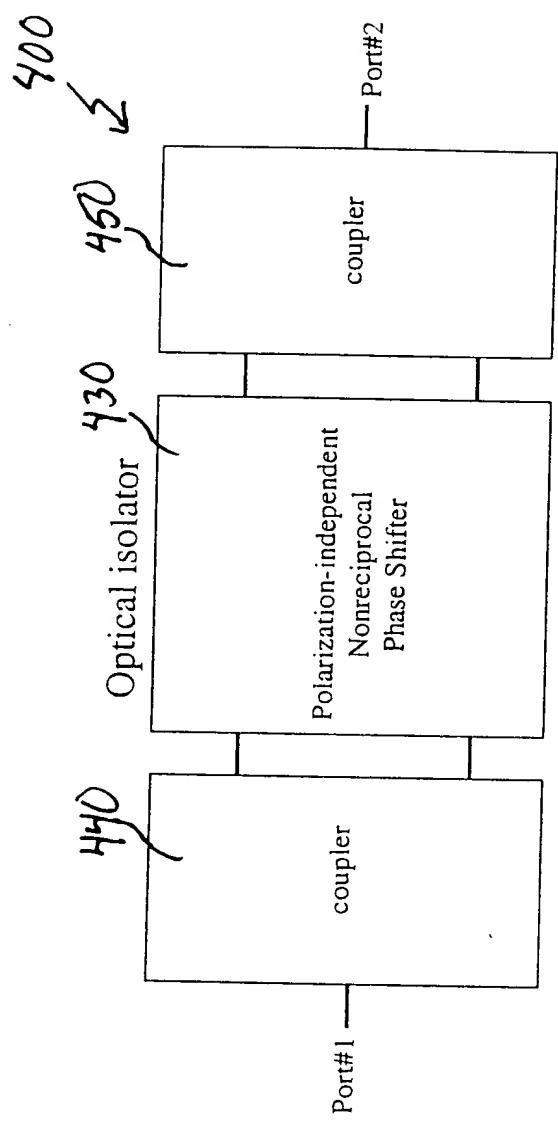


Fig. 4A

Fig. 4B

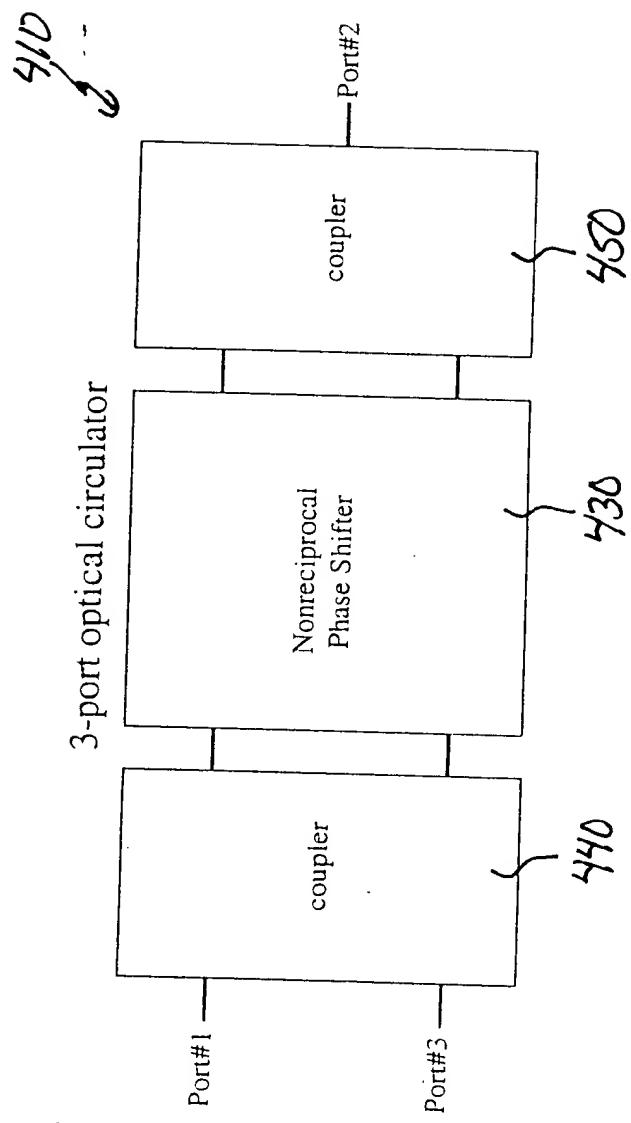
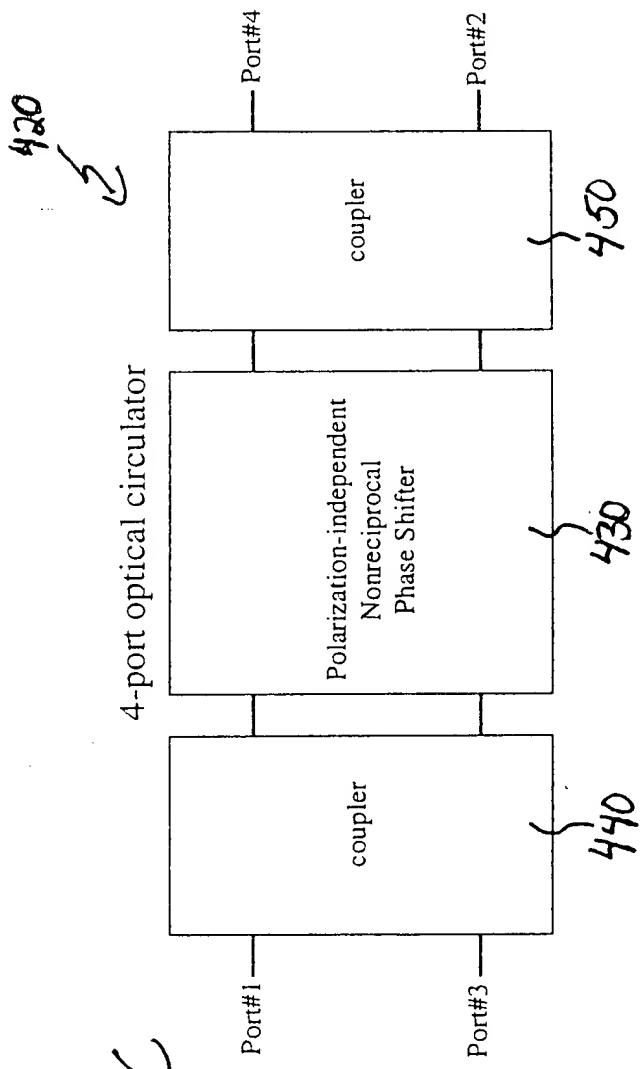


Fig. 4C

4-port optical circulator



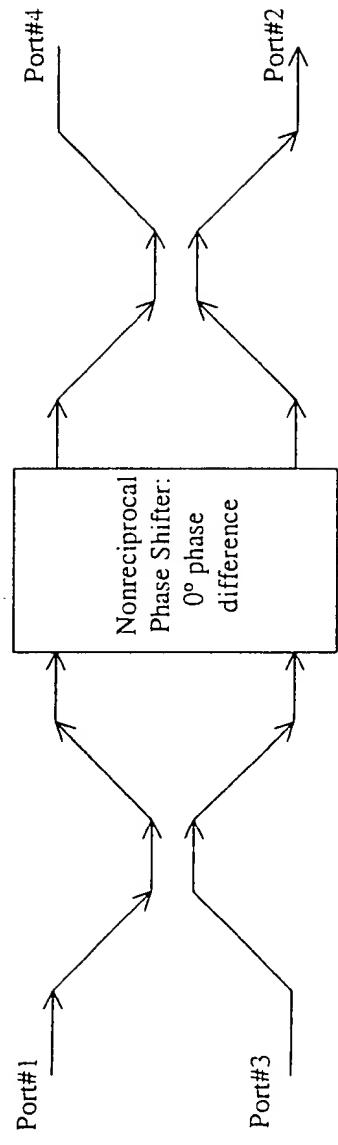


Fig. 5A

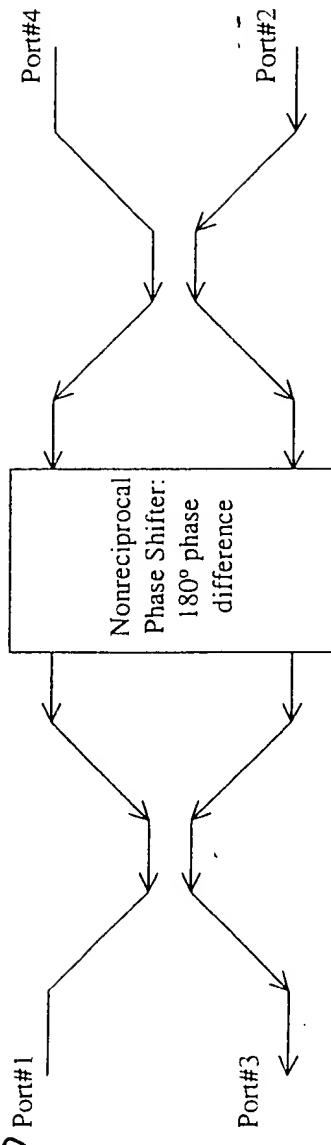


Fig. 5B

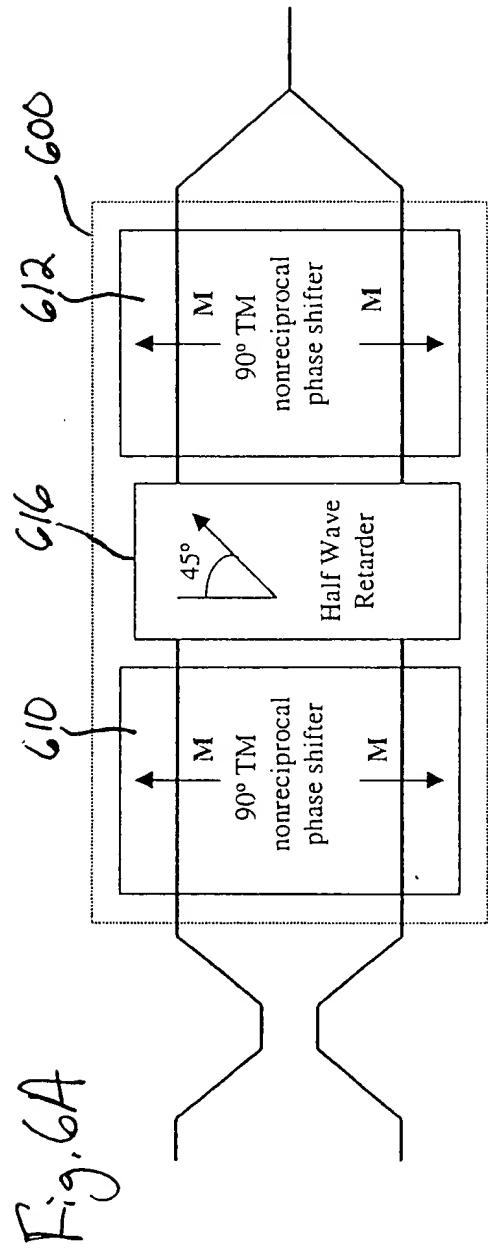


Fig. 6B

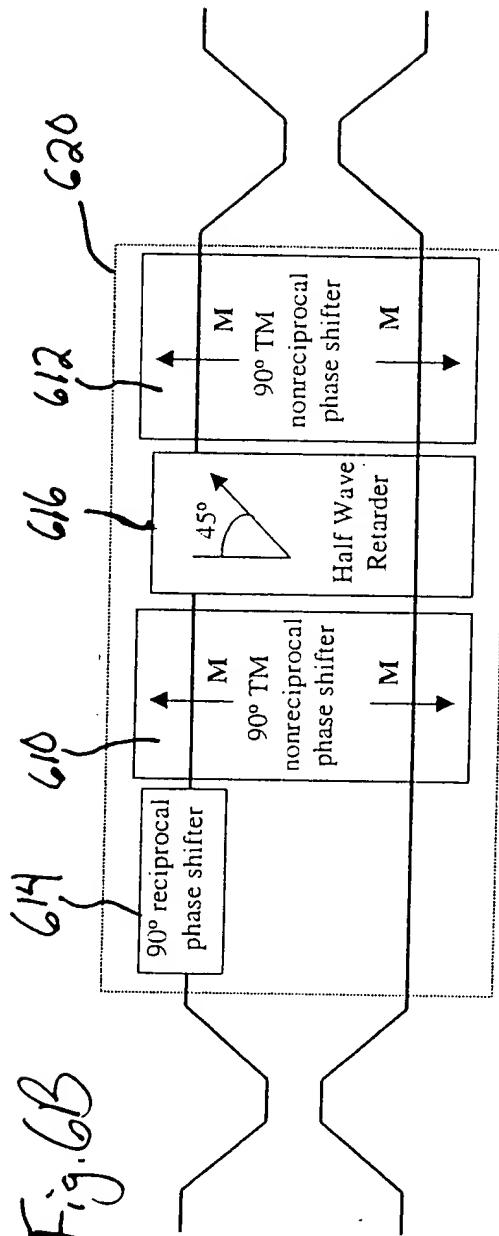


Fig. 6C

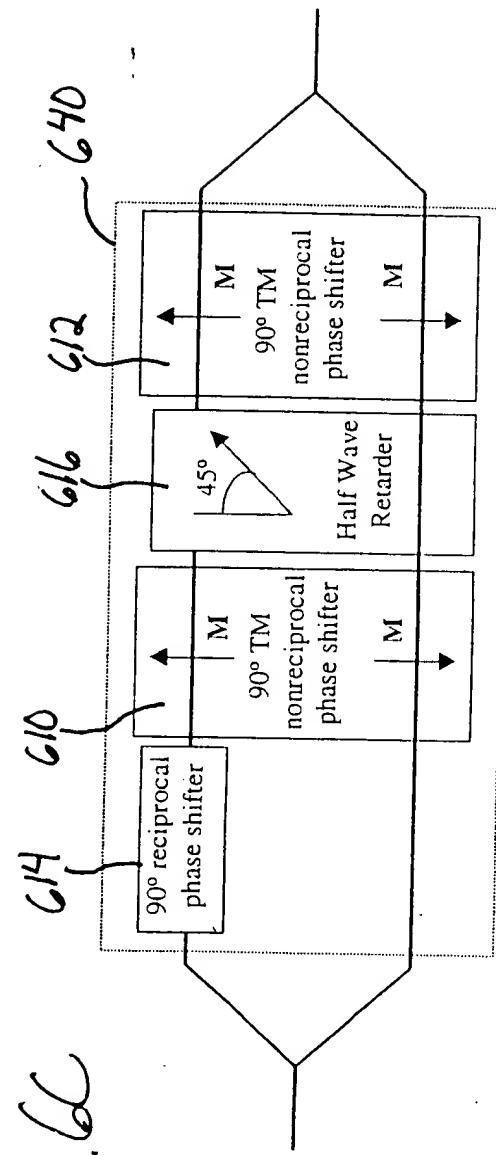
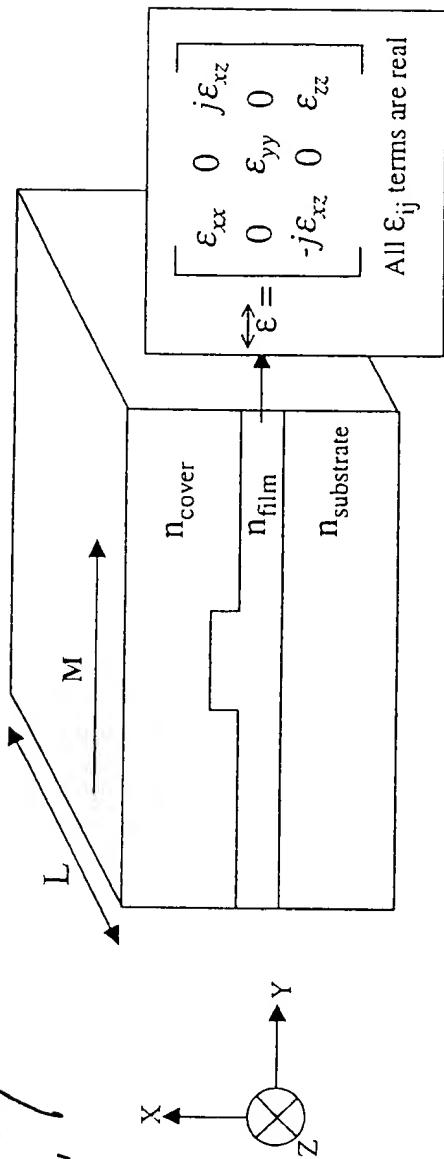


Fig. 7

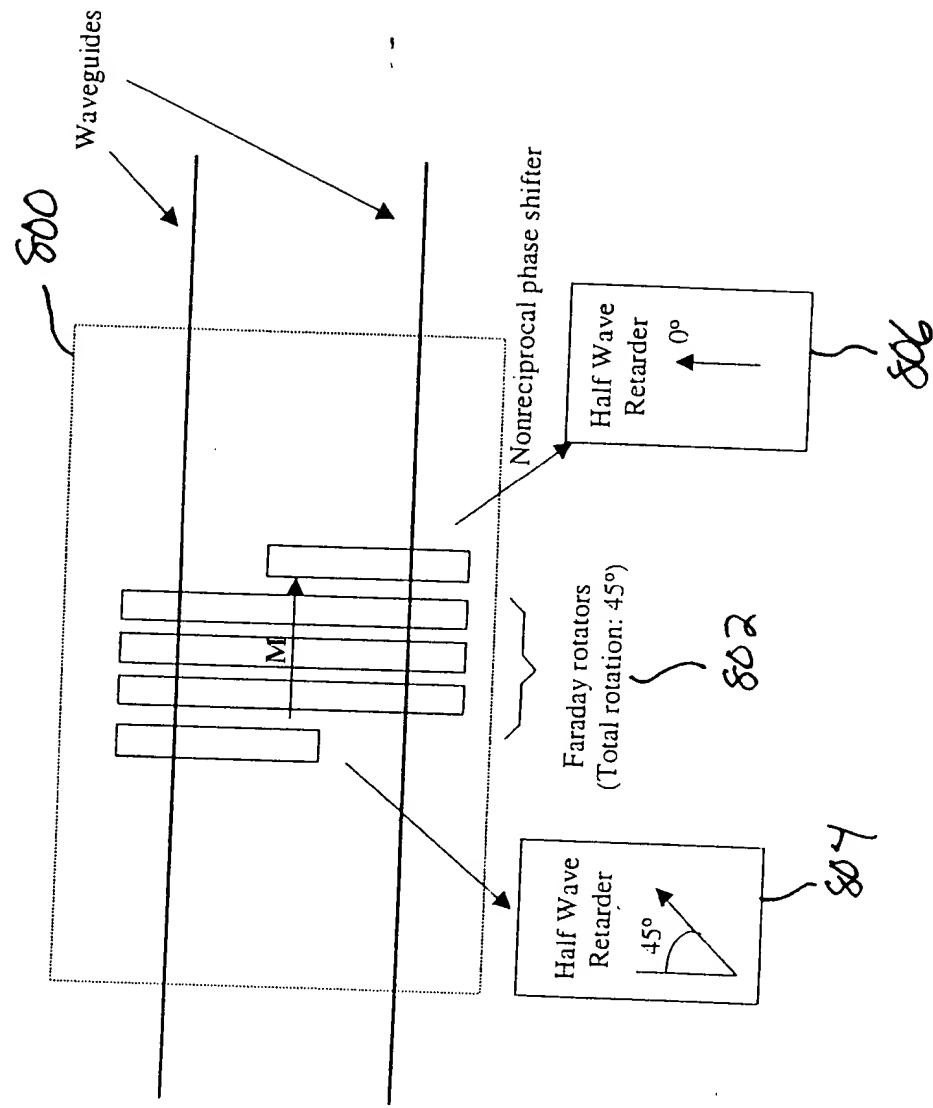


$$\delta\beta = 2\Delta\beta = j \frac{2\omega\epsilon_0}{N} \iint E_x^* \epsilon_{xz} E_z dx dy$$

E_x, E_z : electric field components
 ω : optical frequency
 ϵ_0 : dielectric constant in free space
 N : power normalization factor

Choose: $\delta\beta \cdot L = 90^\circ$

Fig. 8



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Fig. 9

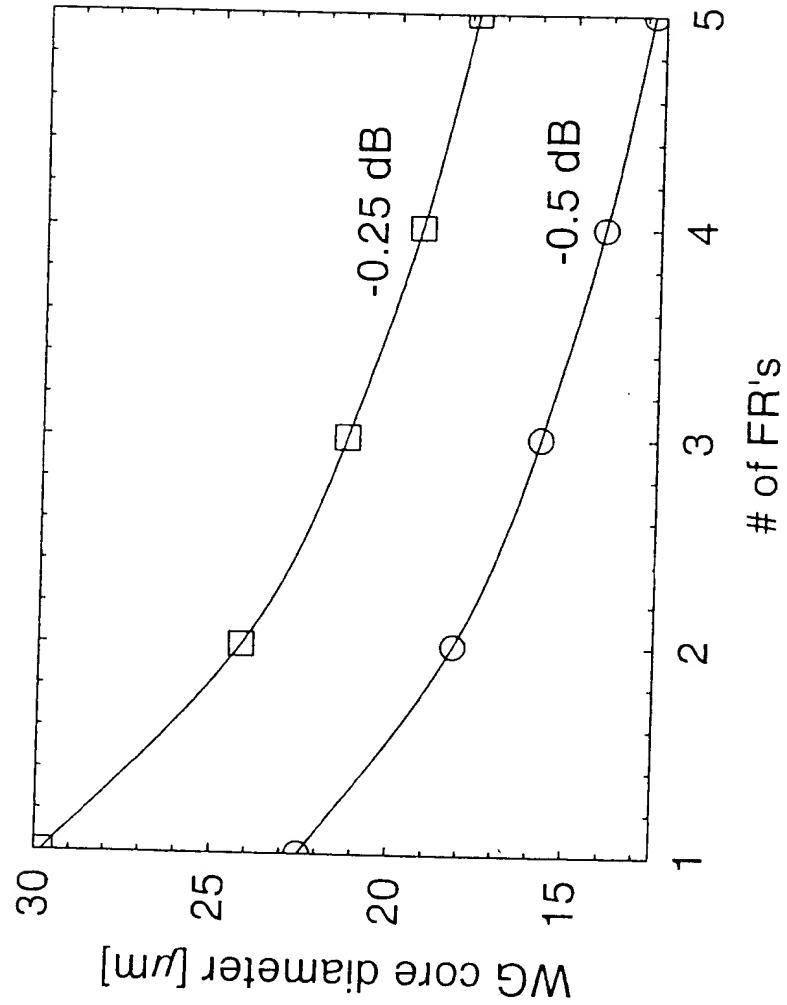


Fig. 10

1000

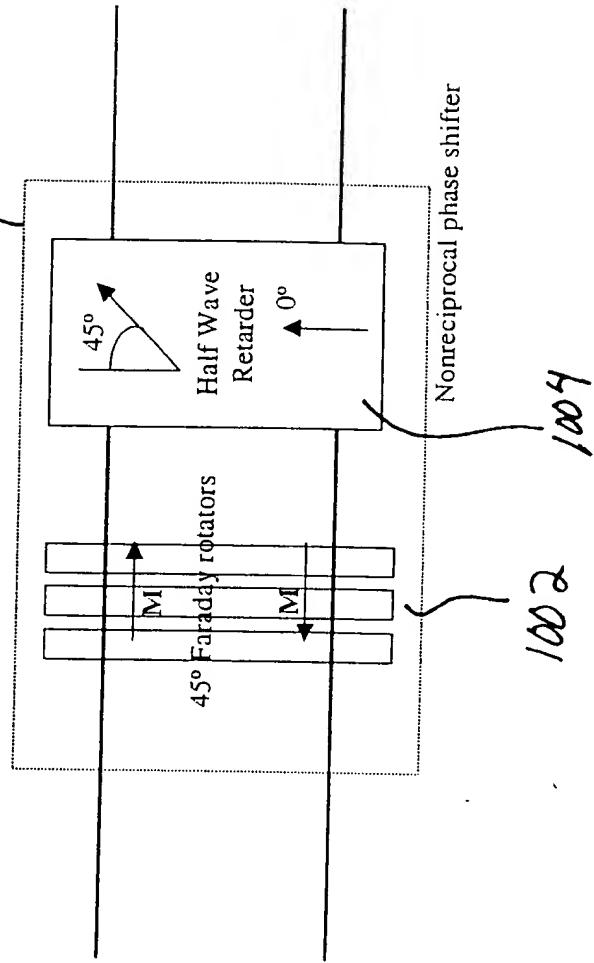


Fig. 11A

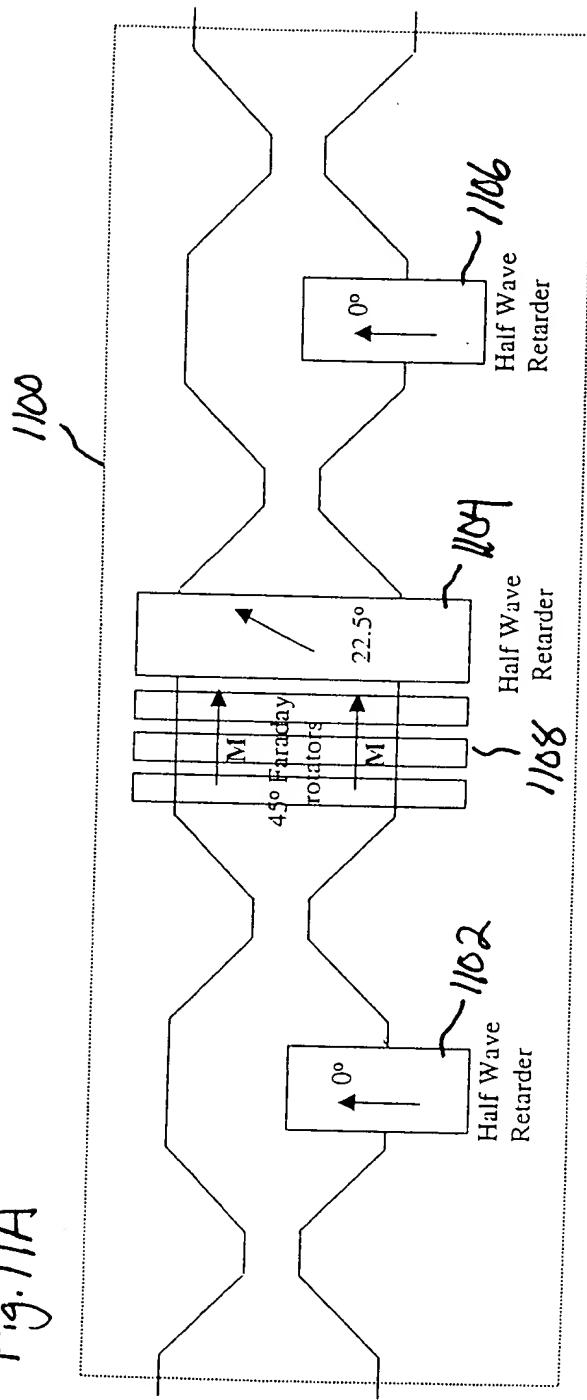
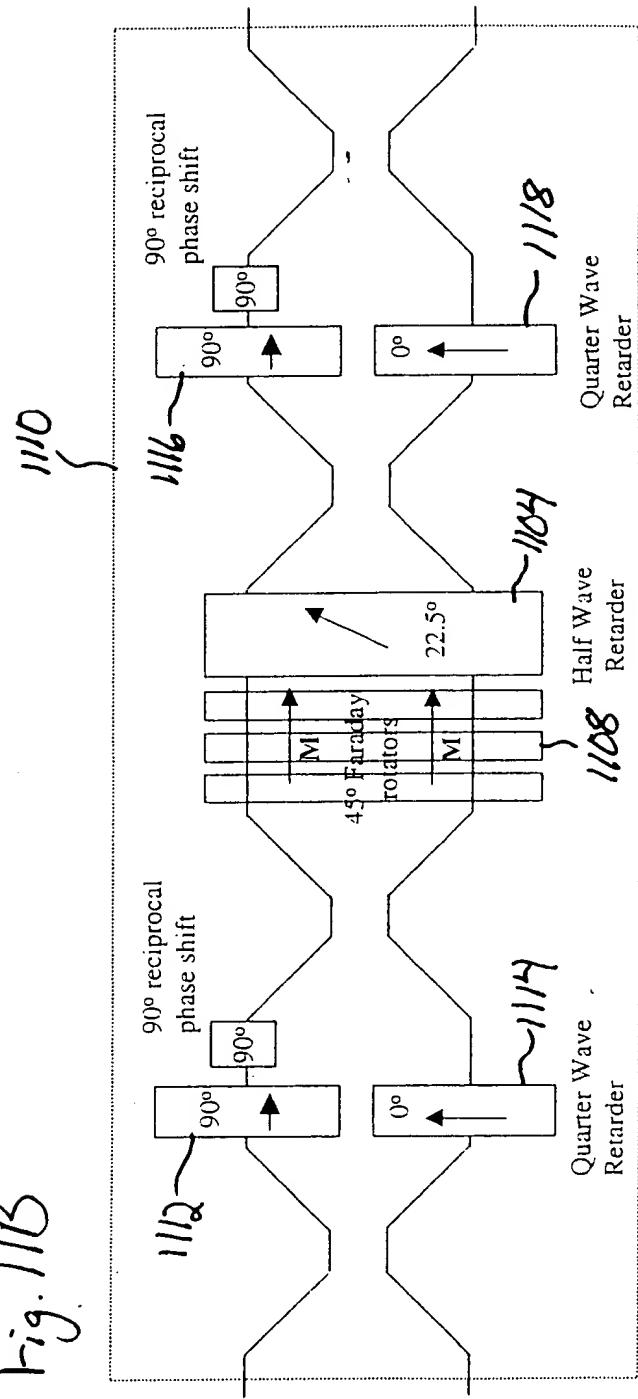


Fig. 11B



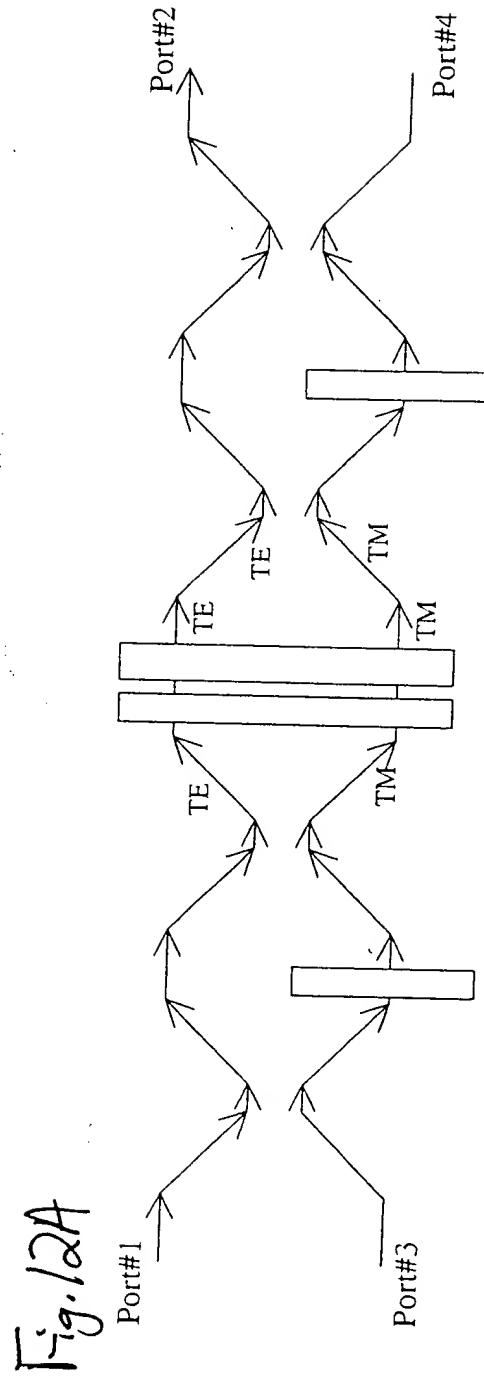


Fig. 12A

